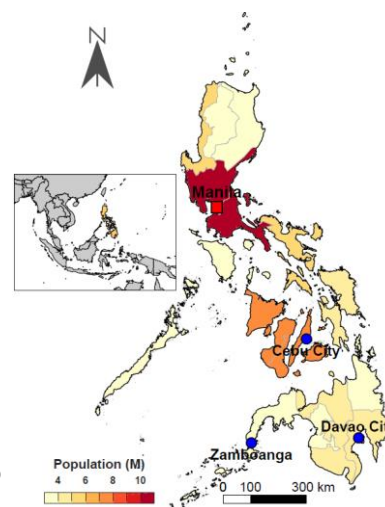


Social Indicators (2019)

Population (million) ¹ :	108.1
Population density (km ⁻²) ² :	362.6
Population growth rate (% yr ⁻¹) ³ :	1.74
Urban population growth rate (% yr ⁻¹) ⁴ :	1.82
Urban area growth rate (% yr ⁻¹) ⁵ :	2.36
Human Development Index ⁶ :	0.712
HDI Rank ⁶ :	106/189
Largest cities by population ⁷ :	Manila, Davao City, Cebu City, Zamboanga City



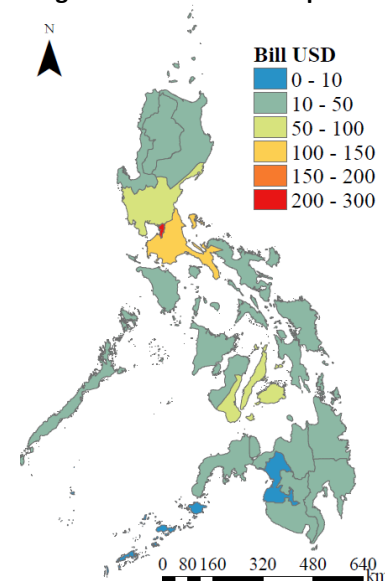
Geography

Land area (km ²) ⁸ :	298,170
Land area below 5 m MSL (%) ⁸ :	2.6
Length of coastline (km) ⁹ :	36,289 km
Terrain ⁹ :	Mostly mountainous with narrow to extensive coastal lowlands
Major river systems ¹⁰ :	Cagayan River in Luzon, Mindanao and Agusan rivers in Mindanao

Economic Indicators (2019)

GDP (million USD) ⁸ :	330,910
GDP PPP (million USD) ⁸ :	954,650
GDP per capita, PPP (USD) ⁸ :	8,951
Agriculture (%)	9
Industry (%)	31
Services (%)	60
Exposure (Billion USD) ¹¹ :	846
Primary (%)	5
Public (%)	2
Industry (%)	17
Commercial (%)	32
Residential (%)	43
Gross capital stock (Billion USD) ¹² :	870.2
Insurance density (USD) ¹³ :	16.34
(Non-life premium in USD per capita)	
Insurance penetration (%) ¹³ :	0.55
(Non-life premium in USD as a percentage of GDP)	

Region-wise Economic Exposure



Description of a recent major event

Typhoon Haiyan: Typhoon Haiyan struck eastern Visayas region on 8 November 2013 with record wind speeds of 315 kph at landfall, and storm surge exceeding 4 m in many areas¹⁵. In the city of Tacloban, the storm surge as high as 6-7 m was reported^{16,17}. The 72-h accumulated rainfall (6-9 November) was estimated to be 440-490 mm¹⁸. It is the deadliest typhoon ever to hit the Philippines, affecting more than 14 million people in 44 provinces, and leading to 7,354 deaths^{14,15}. A total of 1,012,790 houses were damaged of which 518,878 were totally damaged¹⁵. The total loss due to the Typhoon Haiyan amounts to USD 12.9 billion with damage accounting for 74%¹⁵. The hardest hit regions are the Eastern Samar and Leyte, particularly the Tacloban City. About 90% of fatalities and 78% of total economic loss came from these regions.

Recent Major Loss Events¹⁴

Year	Event	Magnitude or Affected area	Deaths	Total loss (bill. USD)
2018	Depression Usman	NA	182	0.17
2013	Typhoon Haiyan	315 kph	7354	12.9 ¹⁵
2013	Flood	50412 km ²	31	2.19
2013	Earthquake	M7.2	230	0.051
2012	Typhoon Bopha	260 kph	1901	0.90
2009	Typhoon Pepeng	NA	512	0.58

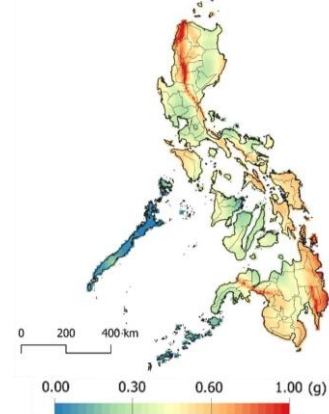
Major Fault Systems

The Philippine Islands lie within a broad zone of deformation between the subducting Eurasian and Philippine Sea Plate. This deformation is manifested by a high level of seismicity, faulting, and volcanism. The Philippine Fault Zone (PFZ) is a 1200 km major left-lateral strike-slip fault across the Philippine archipelago¹⁹. The central PFZ consisting of the Guinayangan, Masbate, and Central Leyte faults are seismically active regions. The largest (M7.0) and most destructive earthquakes are generated along the Guinayangan fault with recurrence interval that ranges from about 30 to 100 years²⁰.

The Marikina Valley Fault System, also known as the Valley Fault System (VFS), is a dominantly dextral strike-slip fault system in Luzon²¹. The fault contains two major segments, known as West Valley Fault (WVF) and East Valley Fault (EVF). The WVF transects the eastern part of Metro Manila and poses the most significant earthquake threat to Quezon City and nearby municipalities. The recurrence interval of large earthquakes on the WVF has been estimated at between 400 to 600 years, with considerable uncertainty²². Other active faults of Philippines are Manila Trench, Lubang Fault and Casiguran Fault.

PGA Map

(Source: ICRM)



Meteorology

The annual percentage of rainy days in Southeast Asia varies from 30% in Central Thailand and Cambodia to 75% in Central Borneo. The rainfall variability is mainly determined by the large-scale monsoon systems, intra-seasonal oscillations, and the complex terrain. Southeast Asia experiences two monsoons: the southwest monsoon from June to September and the northeast monsoon from November to March. June-August months form the main rainy season in continental Southeast Asia, while December-February months are the rainy months south of 5°N.

The climate of Philippines is humid tropical with heavy rains during the summer monsoon from May to October, and a dry season from November to February. About 64% of annual rainfall occurs during May-October. Tropical cyclones contribute about 54% of rainfall in the northern Philippines²³.

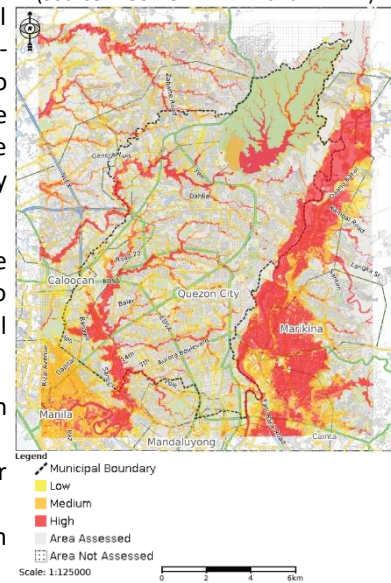
Climate classification²⁵: Tropical rainforest in Mindanao island, and eastern Visayas and Luzon islands; monsoon and savannah climate elsewhere. Average annual rainfall^{10,26}: 2,348 mm; 960 mm in southeast Mindanao to over 4,050 mm in central Luzon.

Average monthly rainfall²⁶: 98 mm (February) – 304 mm (July) – 198 mm (December)

Average annual number of rainy days: 110-170; higher values in the north

100-yr flood hazard map for Metropolitan Manila

(Source: DOST-UP DREAM and LiPAD²⁴)

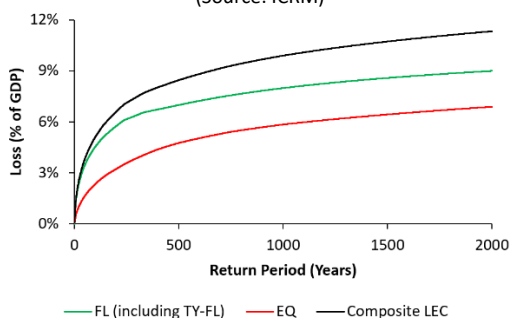


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2019 Loss Values

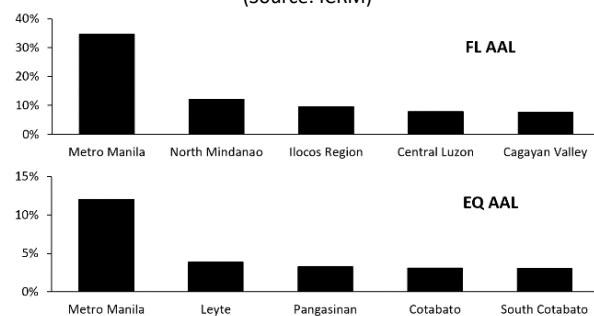
Loss Exceedance Curves

(Source: ICRM)



% of Country's AAL (Top 5 Provinces)

(Source: ICRM)



Data sources

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